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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/530,236

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Shunji Mitsuyoshi

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EXAMINER

LERNER, MARTIN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,236	Applicant(s) MITSUYOSHI, SHUNJI	
	Examiner MARTIN LERNER	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 to 6 is/are allowed.
- 6) ☒ Claim(s) 7 to 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 7 to 9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 7 to 9 represent non-statutory subject matter because they set forth a computer program that is not embodied in a computer readable medium. The USPTO takes the position that a computer program, *per se*, does not comply with the requirements for statutory subject matter because it does not fall within one of the enumerated statutory classes of invention, *e.g.* process, manufacture, and composition of matter, unless it is incorporated into a computer readable medium. Ordinarily, Applicant may simply amend the claims to recite that the computer program is stored in a computer readable medium to overcome the rejection of non-statutory subject matter under 35 U.S.C. §101. Here, however, Applicant has no disclosure in the Specification as originally filed for any computer readable medium. Thus, claims 7 to 9 should be cancelled because any introduction of a preambular limitation embodying the computer program in a computer readable medium would go beyond what is originally disclosed by Applicant's Specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7 to 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

The limitation of a “computer program stored in a computer” presents issues of new matter. Applicant’s originally-filed Specification does not say that a program is stored in a computer. A program need not necessarily be stored in a computer, but could exist only on a computer readable medium, such as a computer disk or flash drive.

Response to Arguments

5. Applicant's arguments filed 09 April 2009 have been fully considered but they are not persuasive.

Applicant amends claims 7 to 9, and argues that the claims meet the requirements for 35 U.S.C. §101, as setting forth statutory subject matter. Applicant’s claim amendments now recite a “computer program stored in a computer”. Applicant maintains that the limitation is inherent, insofar as one having ordinary skill in the art

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would know that an operation process would be processed by a computer having a program. Moreover, Applicant provides a definition of “computer” from Wikipedia, and contends that, in a normal sense, a computer presupposes some sort of program. Furthermore, Applicant states that the original claims include the expression of a “computer to function as said spontaneous emotion unit”. Applicant’s arguments are not fully persuasive.

Firstly, it is maintained that claims 7 to 9, as amended, present issues of new matter. It is not necessarily true that a program must be stored in a computer. A program could be stored on CD-ROM, or on a flash drive. Conceivably, the program could be run directly from a CD-ROM or a flash drive without ever being entirely loaded onto a computer. Thus, amending the claims to say that a computer program is stored in a computer introduces issues of new matter because it is not necessarily inherent that a program must be stored on a computer, and Applicant’s originally-filed Specification does not expressly say that the program is stored on a computer.

Secondly, it is maintained that claims 7 to 9 still fail to meet the requirements for statutory subject matter of 35 U.S.C. §101. It is unclear what statutory category of invention is presented by claims 7 to 9. The rationale of setting forth a claim to a computer readable medium is that an inventor thereby invokes a statutory category of invention directed to an article of manufacture. Here, Applicant cannot set forth a computer readable medium because the originally-filed Specification was not drafted to include an embodiment directed to a computer readable medium. But the question is, then, what is the statutory category of invention here. The USPTO takes the position

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that a computer program, *per se*, does not belong to any of the statutory categories of invention. The only remaining alternative to satisfy the requirement of statutory subject matter, then, is that Applicant is claiming a computer, a machine, which is programmed to operate in a manner according to the program. However, this is precisely what the requirement of a computer readable medium was designed to prevent. MPEP §2106.01 states:

Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material. When a computer program is claimed in a process where the computer is executing the computer program's instructions, USPTO personnel should treat the claim as a process claim. When a computer program is recited in conjunction with a physical structure, such as a computer memory, USPTO personnel should treat the claim as a product claim.

Here, the claims are neither directed to a process nor recited in conjunction with a computer memory. Basically, Applicant's Specification has not disclosed that the program is stored in a computer memory. Thus, it appears that Applicant cannot cure the problem with claims 7 to 9 under 35 U.S.C. §101, which, after all, is due to a defect in drafting of the Specification. Attempting to amend the claims to say that the program is stored in a computer does not actually comply with 35 U.S.C. §101 because the claims still lack a computer readable medium.

Therefore, it is maintained that Applicant's only option is to cancel claims 7 to 9. If Applicant's rationale is followed, then one could argue that a person skilled in the art would know that every computer program could be stored in a computer readable medium. However, Applicant's claims could then be directed to a computer readable

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medium storing the computer program, and would be entitled to coverage against anyone who possesses a computer readable medium with the claimed program. Such coverage would go beyond what is disclosed by Applicant's originally-filed Specification.

Allowable Subject Matter

6. Claims 1 to 6 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

Independent claims 1 and 4 are allowable because the prior art of record does not disclose or reasonably suggest a spontaneous emotion unit that causes state transitions to occur repeatedly between emotion states according to an operation representing a stochastic model of a Schrödinger equation, in combination with a knowledge database that classifies collected knowledge depending on degrees of correlation with emotion states. *Chase* represents the closest prior art of record, disclosing an association between emotional descriptors and words or phrases of a given subject in a language. Thus, a record identifies a context and part of speech for a given word or phrase having a traditional dictionary definition, and associated with each record are one or more emotional descriptors from one or more emotional categories. (Column 10, Lines 19 to 28) *Sadakuni* ('056) teaches an interactive artificial intelligence device, where behavior is modified based on the device's experience through transitions between emotional states. (Column 14, Line 32 to Column 15, Line 62: Figures 10 to 12) However, *Chase* at least does not disclose searching a knowledge database for

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related knowledge using a search key, and *Sadakuni* ('056) does not cause transitions between emotion states to occur repeatedly according to a stochastic (random) model. Applicant's Specification, Page 3, Lines 13 to 21, teaches an objective to provide an inspiration model device that simulates human conception by providing emotional fluctuations similar to a 'brainstorm'.

Independent claims 3 and 6 are allowable because the prior art of record does not disclose or reasonably suggest a spontaneous emotion unit that causes state transitions to occur repeatedly between emotion states according to an operation representing a stochastic model of a Schrödinger equation, in combination with a surface storage unit that captures reaction to emotion states and stores them for a predetermined period and forgets them after a predetermined period has elapsed, and increasing and decreasing probabilities by encouragement and suppression when a frequency becomes greater than a prescribed value. *Sadakuni* ('056) teaches an interactive artificial intelligence device, where behavior is modified based on the device's experience through transitions between emotional states. (Column 14, Line 32 to Column 15, Line 62: Figures 10 to 12) Moreover, it is known that neural networks are operative to increase and decrease probabilities of state transitions through a learning algorithm. However, the prior art of record does not disclose or reasonably suggest at least forgetting a combination of an external input and an emotion state after a predetermined time period has elapsed, and causing transitions between emotion states to occur repeatedly according to a stochastic (random) model. Applicant's Specification, Page 3, Lines 13 to 21, teaches an objective to provide an inspiration

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model device that simulates human conception by providing emotional fluctuations similar to a 'brainstorm'.

Conclusion

8. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARTIN LERNER whose telephone number is (571)272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin Lerner/
Primary Examiner
Art Unit 2626
April 23, 2009